

THE DEMISE OF THE BLACK-VEINED WHITE:
A NEW THEORY

By A. M. EMMET*

As a member of the editorial panel I have been privileged to read Colin Pratt's splendid paper (*Ent. Rec.*, 95: 45 *et seq.*) before publication.

In general I fully agree with the conclusions he draws. However, he is left with a sense of uncertainty which I share with him. I am therefore going to suggest a new (so I believe) and paradoxical reason for the decline of the black-veined white: it was destroyed by its years of abundance.

We are told by conservation experts that in the case of species with discrete, local populations, any surplus stock from our breeding experiments must be liberated at the place of origin or not at all. It is better conservation to kill rare butterflies than to liberate them where they do not belong. The reason is that each colony develops its own finely adjusted genetic pool which generates a breed exactly suited to the microclimate and ecological circumstances of the habitat. This balance of genes is liable to differ between colonies; mix the genes and a less viable insect results.

A never-failing source of surprise is the immediate and often complete disappearance of a local species after a year of plenty. A good example of this is *Leucoptera malifoliella* (O. G. Costa) (*scitella* Zeller). One year it will swarm and whole stretches of hedgerow will be disfigured by its mines; leaves which should have been green are brown and the presence of this tiniest of moths can be detected from afar. The next year on the same hedgerow there is not a mine to be found and it may be more than five years before the population returns to normal.

Now consider these two paragraphs in conjunction. Can it be that excessive abundance leads to unfavourable genetic combinations? If the population of an isolated colony of butterflies expands suddenly, internal pressure will lead to dispersal. As a result of their peregrinations, butterflies from different colonies will mate together and a new combination of genes will ensue. Then, if the conservationists are right, the offspring will be less well adapted to their little niche and more vulnerable to the multifarious hazards threatening their survival.

With non-colonial insects there is no danger because they do not experience genetic isolation. It is only when populations become few, small and geographically remote that each will develop its own peculiar genetic balance and become vulnerable when this is upset by intruders.

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Well, that is my paradox. I know next to nothing about genetics and this may be all too apparent to readers; they will then at least have the fun of picking holes in my theory. If, on the other hand, this idea is worth development, that will be the task of someone better qualified than I am.

BLEDIUS SPP. (COL.: STAPHYLINIDAE) AT LIGHT IN THE LONDON SUBURBS; AND A POINT OF NOMENCLATURE. — Most unexpectedly, two species of this interesting genus of burrowing rove-beetles in 1983 visited my m.v. lamp here at Charlton, specimens occurring on two successive nights in June but at no other time. They were: *B. germanicus* Wagn. (= *limicola* Tott.), one on the 21st and three on the next night; and *B. arenarius* Payk., one on the 22nd. All were females. Both are more or less maritime like most of the genus, and cannot have bred locally; even in the days when saline or brackish marshes extended up the Thames farther than they do now, I find no evidence that either species occurred in the metropolitan area. I have in past years taken *B. germanicus* in the Thames estuary area (Allhallows and Stoke Marshes), but *B. arenarius* never before in W. Kent. The only possible explanation would appear to be a migratory flight from some remnant of saltmarsh on either bank of the river at least seven miles to the east, but the arrival of several individuals at the same spot does seem extraordinary.

I deliberately follow Freude, Harde & Lohse (1964, *Käfer Mitt.*, 4: 98) in calling the smaller of the above two species not *fergussoni* Joy but *arenarius* Payk. — by which name it has been known for well over a century — as a gesture of protest against the use of a name in a sense flatly contrary to that intended by its author. I invite the assent of entomologists to the broad general proposition that a name ought to be applied to an insect possessing the characters attributed to it by the describer, and not to one which he expressly or implicitly excluded from his application of the name, except where there are really sound reasons against such a course. Now, the entire *raison d'être* of Joy's varietal name *fergussoni* was to denote a local race of Paykull's *B. arenarius* having largely dark instead of the typical largely pale elytra; by what right, therefore, is Joy's clearly expressed intention henceforth to be flouted by including in the definition of his name the typical *arenarius*? Such a glaring violation of the above commonsense principle, for the sake of a mere legalistic technicality concerning homonyms, is but one more proof on top of others that the rules of nomenclature as we have them to-day are producing some perverse and unacceptable consequences and urgently require modification. (It should be noted that this has nothing to do with the question of whether the var. *fergussoni* is worth retaining as a separate entity, on which I express no opinion.) — A. A. ALLEN.